



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,391	01/16/2004	Hidco Narita	04853.0110	6069

22852 7590 09/21/2007
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

JOYCE, WILLIAM C

ART UNIT	PAPER NUMBER
----------	--------------

3682

MAIL DATE	DELIVERY MODE
-----------	---------------

09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/758,391		NARITA ET AL.	
	Examiner		Art Unit	
	William C. Joyce		3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 5-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the amendment filed June 29, 2007 for the above identified patent application.

Drawings

1. The drawings were received on June 29, 2007. These drawings are approved.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hezel (EP 1 129 828) in view of Iwata (USP 4,840,090).

Hezel discloses an articulated robot comprising a plurality of joint arms connected to one another, and the rotation axis of the joints being inclined relative to one another. Specifically, a first arm part (2) having a pair of inclined rotation axes (A1, A2) and a second arm part (8) having a pair of inclined rotation axes (A2, A1/1).

Hezel does not teach the claimed motor actuator used to rotate the arm parts around each rotation axis, however it was well known in the art to use a motor having a shaft and reduction mechanism as claimed. For example, the prior art to Iwata teaches a robot actuator having a motor (16), a rotating shaft (1), and a speed reduction

Art Unit: 3682

mechanism, wherein the rotating shaft is hollow for passing a cable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the arm parts of Hezel with a motor and gear mechanism of Iwata, motivation being to provide a compact arrangement for operating the robot arms.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hezel (EP 1 129 828) or Larsson (USP 4,904,148) in view of Akeel (USP 5,293,107).

Hezel discloses an articulated robot comprising a plurality of joint arms connected to one another, the rotation axis of the joints being inclined relative to one another. Specifically, a first arm part (2) having a pair of inclined rotation axes (A1, A2) and a second arm part (8) having a pair of inclined rotation axes (A2, A1/1).

Larsson discloses an articulated robot comprising a plurality of joint arms connected to one another, the rotation axis of the joints being inclined relative to one another. Specifically, a first arm part (14) having a pair of inclined rotation axes, a second arm part (15a) having a pair of inclined rotation axes, and a third arm part (15b) having a pair of inclined rotation axes.

Both Hezel and Larsson fail to teach the claimed motor actuator used to rotate the arm parts around each respective rotation axis. It was well known in the art to use a motor having a shaft and reduction mechanism as claimed for controlling a robotic device. For example, the prior art to Akeel teaches (Figure 1 & 3) a motor and gear arrangement for displacing relatively rotating robotic arm parts. It would have been

Art Unit: 3682

obvious to one of ordinary skill in the art at the time the invention was made to control the arm parts of either Hezel or Larsson with the motor and speed reduction mechanism of Akeel, motivation being to provide a compact motor with gear arrangement for operating the robot arms at a predetermined speed.

Neither Hezel nor Larsson teach the motor actuators being alternately arranged as defined in claim 4, however Akeel illustrates in Figure 8 a pair of motors (134,136) positioned in a first arm part (148), no motors being positioned in an adjacent arm part (15), and a pair of motors (138,140) being positioned in a third arm part. It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the motor actuators of either Hezel or Larsson in an alternate manner, as taught by Akeel, motivation being to provide a compact arrangement while facilitating in the assembly of the device.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 2, and 4 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

Art Unit: 3682

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 9/10/07
William C. Joyce